This is written to provide a reason statement for my proposed State of Washington amendments to the 2009 IFC relating to the new Chapter 46.

#### BACKGROUND

IFC Chapter 46 is a new chapter titled Construction Requirements for Existing Buildings. It covers retroactive requirements to existing buildings, and includes such topics as elevators (emergency operation), vertical openings (shafts), sprinkler systems, standpipes, fire alarm systems, means of egress, and outdoor operations (tire storage). While it is a new chapter in the 2009 edition of the IFC, many of the provisions located therein are actually found in various other sections in earlier editions of the IFC. A notable exception is the new 5 page provision (Section 4604) for the means of egress in existing buildings – this is not found in the 2003 and 2006 editions.

Chapter 46 apparently was created so that the retroactive provisions previously located throughout the code could be located in one place. Having said that however, this was not a comprehensive effort, and so there still exist other retroactive requirements in other sections of the IFC (as an example, please see Section 510 requiring Emergency Radio Responder Coverage in some buildings – which I understand (from a few that know) is an overly simplistic regulation dealing with a complex and costly problem to resolve).

Chapter 46 initially surprised me because it's title "Construction Requirements...." was seemingly contradictory to my understanding that "construction requirements" are generally found in the IBC. But it was even more surprising to find out from an analysis by Don Breiner, AIA (AIA Code Committee) that much of the new Chapter 46 is just relocated from other portions earlier editions of the IFC. If there was significant debate about this when the 2003 I codes were adopted in Washington, I missed it and so be it. But if there wasn't debate about this, there should have been because of the impact on the existing building stock.

Based on recent informal discussions with several fire officials, it appears that the predecessor retroactive provisions in the 2006 and 2003 editions are not being enforced to any great degree.

### **CONCERNS**

The underlying concern I have for these retroactive requirements relates directly to the fact that IFC Chapter 46 is conflictive with a fundamental philosophy that has been embedded in the building code for a very long time. That is, an existing building is considered legally occupied and safe and does not need to be brought up to the more current codes provided that it complies with the code under which it is constructed and further provided that the building has been properly maintained. This is addressed in the 2006 IBC Section 102.6 (2003 and 2009 editions are the same):

**IBC 102.6 Existing structures**. The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as specifically covered in this code, the *International Property Maintenance Code* or the *International Fire Code*, or as is deemed necessary by the building official for the general safety and welfare of the occupants

The reference to the International Property Maintenance Code is a moot issue for Washington because it is not adopted, but note that it also references the IFC. The predecessor provision in the UBC did not similarly reference the UFC.

When considering IBC Section 102.6 when the first I-Code was adopted (i.e., the 2003 edition), I assumed that the IFC reference was included to cover the provisions of that code which related to "operational and maintenance" requirements such as flammable liquid storage, high-piled stock, maintaining exits, etc. that can occur in an existing building after occupancy without a required building permit. But now, with the retroactive provisions of Chapter 46 and other sections in the 2009 IFC in mind, the link to the fire code in Section 102.6 takes on a whole new meaning. Its impact with respect to IFC's retroactive requirements on existing buildings warrants public debate. Related to this are the provisions in Section 102 Applicability of the IFC – it references "construction and design provisions" in one subsection and "operational and maintenance provisions" in another subsection.

#### Other concerns I have are as follows:

- This not only changes the long standing philosophy in the code, it also calls into question Washington's code hierarchy which places the building code above the fire code in cases of conflict (19.27.031).
- Retroactive requirements have significant impact on building owners as well as
  regulatory agencies and they are never ever simple. Note the Council's recent
  experience with the difficulty and multiple rounds of revisions and the need for
  follow-up legislature involvement on the relatively focused retroactive sprinklers
  for night clubs.
- Because of these difficulties, my opinion is that the legislature and/or local city councils should be directly involved in the question of retroactive adoption, rather than to follow lock-step the retroactive provisions generated in the national fire code development.
- Having adopted regulations that are not being enforced reflects poorly on a government. It leads to inconsistent enforcement and unfair treatment of building owners, whether perceived or actual.

- More importantly, even if the local fire code official has decided not to enforce a specific retroactive provision because (1) the agency does not agree with the requirement or (2) the agency doesn't have the time and/or staff to enforce it, it automatically sets up an onerous increase in liability for owners of existing buildings. Owners are responsible even if the agency does not enforce it. And if there is an accident that can somehow be remotely linked to the retroactive provisions, this puts owners under the cloud of non-compliance at the outset.
- Chapter 46 requires retroactive work to be accomplished under permit as required by both the IFC and the IBC. For the provisions in the IFC that are otherwise regulated in the IBC (such as vertical openings (shafts) and means of egress for example) this sets up potential difficulties within city government as to which department is ultimately responsible for interpretation and enforcement because the regulations relating to both vertical openings and the means of egress are different in each code. An example of this is found in Section 4604.1 specifically states that the fire code official has the authority to review and approve the means of egress which is traditionally an area of responsibility of the building code official. This lack of clarity makes the private sector's interface with local government much more difficult dealing with two separate city departments responsible for conflicting and overlapping regulations about the same topic can be very problematic and does not lend itself to good government.

There are numerous questions that arise upon reviewing the Chapter 46 requirement...a few examples are as follows:

- Elevator operation (4603.2) this demands that elevators with > 25 feet of travel have emergency operation capability which is a costly impact to an existing building. Shouldn't this sort of regulation (assuming benefits outweigh the costs) be proposed for the state's elevator code (where elevator expertise exists) rather than the fire code?
- Vertical Openings Three to Five Stories (4603.3.2) there are 3 exception to this listed in the Chapter 46, and there are 16 exceptions listed in the related section in the IBC Section 708.2 (2009 edition). What are the implications of this?
- Atriums and covered malls (4603.3.4) this requires one hour construction or sprinklers in mall buildings and buildings with atriums but provides two exceptions that have nothing to do with atriums or malls?

#### FIRE CODE TAG

To their credit, the Fire Code TAG saw specific problems with the provisions in Section 4604 of the 2009 IFC relating to the means of egress systems in existing buildings. They apparently focused on Section 4604 (Means of Egress) because it was the significant new

regulation (rather than just relocated as noted above). The TAG's concern was similar to some of the concerns expressed above. As a result, they proposed the following amendment to the Section:

#### SECTION 4604 MEANS OF EGRESS FOR EXISTING BUILDINGS

4601.1 General. Means of egress in existing buildings shall comply with Section 1030 and 4604.2 through 4604.23.

EXCEPTION: Means of egress conforming to the requirements of the building code under which they were constructed and Section 1030 shall not be required to comply with 4604.2 through 4604.21, if in the opinion of the fire code official, they do not constitute a distinct hazard to life.

**4604.1.1 Evaluation.** Existing buildings that were not required to comply with a building code at the time of construction shall comply with the minimum egress requirements when specified in Table 4603.1 as further enumerated in Sections 4604.2 through 4604.23 and, in addition, shall have a life safety evaluation prepared, consistent with the requirements of Section 104.7.2. The life safety evaluation shall identify any changes to the means of egress that are necessary to provide safe egress to occupants and shall be subject to review and approval by the fire and building code officials. The building shall be modified to comply with the recommendations set forth in the approved evaluation.

While I think the TAG's proposal helps get to the concern expressed above, I don't think it goes far enough.

- One concern is that the exception (which attempts to get back to traditional building code philosophy) expands the authority of the fire official into an area of regulation (means of egress) that has traditionally been the responsibility of the building official.
- Another concern is that the exception hinges on a determination of what constitutes a "distinct hazard to life". By including this in the exception, it implies that a determination of a 'distinct hazard to human life" can occur just because it doesn't meet current codes, which in my opinion changes the long standing meaning of the phrase. How does this "distinct hazard to life" relate to the provisions of Section 115 Unsafe Structures and Equipment?
- Another concern is that 4604.1.1 provides authority to a fire code official to require an owner to provide a professionally prepared life safety evaluation for an existing building that was not required to comply with a code at the time of construction. Does this mean all buildings constructed before the 1974 State Building Code Act in Washington jurisdictions that did not have a legally adopted code? Or does it mean any building which has been determined by the fire official to not comply with a specific provision of the code under which it was constructed?

• It seems to me that before a costly life safety evaluation is required, the fire official should be required to notify the owner in writing of the distinct hazard to life that they have determined and their justification for the determination. This seems only fair to the owner who undoubtedly has gone thru many past inspections where a "distinct hazard" has not been at issue.

#### POSSIBLE AMENDMENTS -GENERAL APPROACHES:

- 1. Amend IBC Section 102.6 and strike reference to IFC
- 2. Amend IBC Section 102.6 and modify reference to IFC by making it applicable to only regulations relating to "operational and maintenance" issues of IFC
- 3. Place certain portions of Chapter 46 in the appendix and so it would be available for local adoption locally.
- 4. Delete portions of Chapter 46. Note that 4605 relates to outside tire storage yards and that certain sections of retroactive fire alarms are already required by the Washington legislature (smoke detection in transitory dwelling units and sleeping rooms) which are examples of portions that should not be deleted
- 5. Amend Section IFC 4601 to limit the scope to only those existing buildings that do not comply with the code under which they were constructed.
- 6. Amend the TAG proposed amendment

#### **PROPOSD AMENDMENTS:**

#### Part 1. Amend IBC Section 102.6 as follows:

**102.6 Existing structures.** The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as specifically covered in this code, the *International Property Maintenance Code* or the <u>those operational and maintenance requirements under the provisions of Section 102.2</u> of the *International Fire Code*, or as is deemed necessary by the building official for the general safety and welfare of the occupants.

#### Part II. Amend Chapter 46 as follows:

Delete (or move to the appendix) all provisions in Chapter 46 other than (1) those requirements relating to smoke detection/alarms required by the legislature (which I think relates only to smoke detection in transitory residential), and (2) the provisions of 4605 for tire storage yards.